DEPARTMENT OF THE ARMY TECHNICAL MANUAL
TM 11-900

DEPARTMENT OF THE AIR FORCE TECHNICAL ORDER
TO 35C2-3-35-1
*C 2

POWER UNITS PE-75-C, -D, -J, -K, -P, -S, -T, -U, -W, -AA, -AB, -AC, -AD, AND -AE

TM 11-900
TO 35C2-3-35-1
CHANGES No. 2

DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
WASHINGTON 25, D.C., *18 December 1961*

TM 11-900/TO 35C2-3-35-1, 20 September 1945, is changed as follows:

Page 8.

6. Differences in Models

* * * * * * *

b. Differences in Generators. All generators used * * * Power Unit PE-75-AE.

Note (As added by C 1, 20 Sep 52). A limited number of Kurz-Root generators, procured on Order No. 22698-Phila-51 as replacement generators, were supplied with their armatures incorrectly wound. If the generator armature or the generator frame has been changed and the unit fails to deliver voltage, reverse the brush leads and recheck for output before condemning the generator.

* * * * * * *

g. (As changed by C1, 20 Sept 52). *Summary of Differences.* The table on page 15 summarizes the principal differences in models.

Note (As added by C 1, 20 Sep 52). See note in *b* above.

Page 92.

54. Generator Trouble Chart

* * * * * * *

b. Unit Fails to Deliver Voltage.

Possible cause	*Check*	*Remedy*
* * *	* *	* *
(11) (As added by C 1, 20 Sep 52). Armature incorrectly wound.	Check armature	Reverse brush leads. (See note (par. 6*b*.))
* * *	* *	* *

*These changes supersede C 1, 29 September 1952, and together with C 5, TM 11-900A, 8 August 1952, supersede TM 11-6115-206-10P, 13 July 1959, and so much of TM 11-6115-206-20P, 13 July 1959, as pertains to maintenance allocation.

Page 94.

56. Testing Generator and Outlet-filter-box Circuits

* * * * * * *

b. No Voltage.

* * * * * * *

(5) *Defective armature.* With a correct * * * suspecting the armature.

Note (As added by C 1, 20 Sep 52). See note in paragraph 6*b*.

* * * * * * *

Page 139.

67. Engine Adjustments

After engine has * * * unit to operation.

a. Power Unit Test.

* * * * * * *

(7) (As added by C 1, 22 Sep 52). If the generator armature or the generator field has been changed and there is no generator output, refer to the note following paragraph 6*b*.

Page 140. Add the following paragraphs:

69. Comments or Suggestions

Any comments concerning omissions and discrepancies in appendix II and appendix III will be prepared on DA Form 2028 and forwarded direct to Commanding Officer, U.S. Army Signal Materiel Support Agency, ATTN: SIGMS-ML, Fort Monmouth, N.J.

70. Index of Equipment Publications

Refer to DA Pamphlet 310-4 to determine what Changes or revisions of this publication are current.

Page 141, paragraph 1. Delete reference to SIG 1, SIG 2, SIG 7, and SIG 8.

Pages 143, 144, 146, 148, 150, 152, 154, and 156 through 162. Delete the material on these pages.

Page 162. Add appendix III, as follows:

APPENDIX III

MAINTENANCE ALLOCATION CHART

1. General

a. This appendix assigns maintenance functions to be performed on components, assemblies, and subassemblies by the lowest appropriate maintenance echelon.

b. Columns in the maintenance allocation chart are as follows:

(1) *Component.* This column shows only the nomenclature or standard item name. Additional descriptive data is included only where clarification is necessary to identify the component. Components, assemblies, and subassemblies are listed in topdown order. That is, the assemblies which are part of a component are listed immediately below that component, and the subassemblies which are part of an assembly are listed immediately below that assembly. Each generation breakdown (components, assemblies, or subassemblies) are listed in disassembly order or alphabetical order.

(2) *Maintenance function.* This column indicates the various maintenance functions allocated to the echelons.

(*a*) *Service.* To clean, to preserve, and to replenish lubricants.

(*b*) *Adjust.* To regulate periodically to prevent malfunction.

(*c*) *Inspect.* To verify serviceability and to detect incipient electrical or mechanical failure by scrutiny.

(*d*) *Test.* To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc.

(*e*) *Replace.* To substitute serviceable components, assemblies, or subassemblies, for unserviceable components, assemblies, or subassemblies.

(*f*) *Repair.* To restore an item to serviceable condition through correction of a specific failure or unserviceable condition. This function includes but is not limited to welding, grinding, riveting, straightening, and replacement of parts other than the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

(*g*) *Aline.* To adjust two or more components of an electrical system so that their functions are properly synchronized.

(*h*) *Calibrate.* To determine, check, or rectify the graduation of an instrument, weapon, or weapons system, or components of a weapons system.

(*i*) *Overhaul.* To restore an item to *completely serviceable* condition as prescribed by serviceability standards developed and published by heads of technical services. This is accomplished through employment of the technique of "Inspect and Repair Only as Necessary" (IROAN). Maximum utilization of diagnostic and test equipment is combined with minimum disassembly of the item during the overhaul process.

(*j*) *Rebuild.* To restore an item to a standard as near as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished

through the maintenance technique of complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications and subsequent reassembly of the item.

(3) *1st, 2d, 3d, 4th, 5th echelon.* The symbol X placed in Columns 3 through 7 indicates the echelon responsible for performing that particular maintenance operation, but does not necessarily indicate that repair parts will be stocked at that level. Echelons higher than the echelon marked by X are authorized to perform the indicated operation.

(4) *Tools required.* This column indicates codes assigned to each individual tool equipment, test equipment, and maintenance equipment referenced. The grouping of codes in this column of the maintenance allocation chart indicates the tool, test, and maintenance equipment required to perform the maintenance function.

(5) *Remarks.* Entries in this column will be utilized when necessary to clarify any of the data cited in the preceding columns.

c. Columns in the allocation of tools for maintenance functions are as follows:

(1) *Tools required for maintenance functions.* This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

(2) *1st, 2d, 3d, 4th, 5th echelon.* The dagger (†) symbol in these columns indicates the echelons normally allocated the facility.

(3) *Tool code.* This column lists the tool code assigned.

2. Maintenance by Using Organizations

When this equipment is used by signal services organizations organic to theater headquarters or communication zones to provide theater communications, those maintenance functions allocated up to and including fourth echelon are authorized to the organization operating this equipment.

Maintenance Allocation Chart

Part or component (1)	Maintenance function (2)	1st ech. (3)	2d ech. (4)	3d ech. (5)	4th ech. (6)	5th ech. (7)	Tools required (8)	Remarks (9)
POWER UNIT PE–75–C, D, J, K, T, U, W, AA, AB, AC, AD, AE.	Service	X					2, 7, 13, 14.	Cleans exterior.
			X				11	Lubricates and cleans air cleaner.
	Adjust		X				11	Voltage, spark plugs, ignition contact points, belts and governor.
				X			10	Valves.
	Inspect	X						
	Test		X				3, 11	Opens and shorts.
				X			4, 6, 8, 9, 10, 12.	Carburetor float level, valve. Clearance and ignition timing.
					X		1, 4, 5, 6, 8, 9, 10, 12.	Compression, generator windings.
	Repair		X				11	
				X			10	Grinds or replace valves.
	Rebuild				X		10	
	Replace			X			10, 11	Plus shop support.
	Rebuild				X			
	Replace		X				11	
	Repair		X				11	
	Replace		X				11	
	Repair		X				11	Minor repairs.
	Rebuild			X			10	
MAGNETIC IGNITION ASSEMBLY–GENERATOR G–40/U	Repair		X				11	
	Replace			X			10	Plus shop support.
	Rebuild				X		10	
	Replace				X		10	

Allocation of Tools for Maintenance Functions

Tools required for maintenance functions	1st ech.	2d ech.	3d ech.	4th ech.	5th ech.	Tool code	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
COMPRESSION GAGE FSN 4910–250–2423			(†)	(†)	(†)		1
PLIERS FSN 5120–223–7297	(†)						2
MULTIMETER AN/URM–105		(†)					3
MULTIMETER TS–352/U			(†)	(†)	(†)		4
OHMMETER ZM–21/U				(†)	(†)		5
SCALE SPRING FSN 6670–291–8721			(†)	(†)	(†)		6
SCREWDRIVER FSN 5120–277–9491	(†)						7
TACHOMETER FSN 6625–405–6352			(†)	(†)	(†)		8
THERMOMETER MX–1570/G			(†)	(†)	(†)		9
TOOL EQUIPMENT TE–111			(†)	(†)	(†)		10
TOOL SET GENERAL MECHANICS FSN 5180–754–0641		(†)					11
VACUUM GAGE FSN 4910–387–9582			(†)	(†)	(†)		12
WRENCH FSN 5120–293–2432	(†)						13
WRENCH TL–476/U FSN 5120–240–5328	(†)						14

APPENDIX IV (Added)

BASIC ISSUE ITEMS LIST FOR POWER UNITS PE–75–C, –D, –J, –K, –P, –S, –T, –U, –W, –AA, –AB, –AC, –AD, –AE

Section I. INTRODUCTION

1. Scope

a. This appendix lists items supplied for initial operation and for running spares. The list includes tools, accessories, parts, and material issued as part of the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

b. Columns are as follows:

(1) *Source, maintenance, and recoverability code.* Not used.

(2) *Federal stock number.* This column lists the 11-digit Federal stock number.

(3) *Designation by model.* Not used.

(4) *Description.* Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description.

(5) *Unit of issue.* The unit of issue is each, not annotated, and is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

(6) *Expendability.* Nonexpendable items are indicated by NX. If the column is blank the item is expendable.

(7) *Quantity authorized.* Under "Items Comprising an Operable Equipment," the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spares and Accessory Items," the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

(8) *Illustration.* The "Item No." column lists the reference designations that appear on the part in the equipment. These same designations are also used on any illustrations of the equipment. The numbers in the "Figure No." column refer to the illustrations where the part is shown.

(2) Federal stock No.	(4) Description	(5) Unit of issue	(6) Expendability	(7) Quantity authorized	(8) Illustrations: Figure No.	(9) Illustrations: Item No.
6115-228-5815	POWER UNIT PE-75-C, D, J, K, T, U, W, AA, AB, AC, AD, AE: gen, 120 vac, 60 cyc, single phase, 2.5 kw, 2 wire, 1,800 rpm; prime mover, one cyl, air cooled, 2,800 rpm, manually cranked by rope; w/radio interference; 36 in. lg x 19 in. wide x 23½ in. h o/a.					
	ITEMS COMPRISING AN OPERABLE EQUIPMENT					
	POWER UNIT PE-75-C, D, J, K, T, U, W, AA, AB, AC, AD, AE (BASIC COMPONENT).	EA	NX	1	1	
Order through AGC	TECHNICAL MANUAL TM 11-900 (Not installed)			2		
2805-356-1985	COVER: power unit cover; Webb Mfg No. PB-8651 (Not installed)			1		
6115-356-1001	HANDLE: Sig/dwg No. ES-B-107633 (Mounted in equip)			4	1	H628 through H631.
	RUNNING SPARES AND ACCESSORY ITEMS					
5120-223-7397	PLIERS: Bonney Tool No. B-26 (Not installed)		NX	1		97
5120-277-9491	SCREWDRIVER TL-358/U: Stanley No. 81-4 (Not installed)		NX	1	97	
2990-288-4727	STARTER ROPE: Br and Str No. 292897 (Not installed)			1	12	4
5120-293-2432	WRENCH: Burner No. 221 (Not installed)		NX	1	97	
5120-240-5328	WRENCH TL-476/U: Crescent tool No. AC-18 (Not installed)		NX	1	97	
	RUNNING SPARES AND ACCESSORY ITEMS					
2910-269-7127	BOWL, FUEL CLEANER: Br and Str 68487 (Not installed)			1	32	090
2910-171-3676	GASKET: fuel bowl; Br and Str 68477 (Not installed)			4	32	089
2940-391-4173	GASKET: air cleaner cover; Br and Str 67897 (Not installed)			2	96	04
5330-298-0184	GASKET: air cleaner Br and Str 67247 (Not installed)			2	96	014
2920-580-9848	SPARK PLUG: Champion type No. XEJ-8 (Not installed)			2	93	E4
2990-288-4727	STARTER ROPE: Br and Str No. 292897 (Not installed)			1	12	4

BY ORDER OF THE SECRETARIES OF THE ARMY AND THE AIR FORCE:

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Chief of Staff.

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Yuma Test Sta (2)
USACA (3)
USASSA (20)
USASSAMRO (1)
USASEA (1)
USA Caribbean Sig Agcy (1)
USA Sig Msl Spt Agcy (13)
Sig Fld Maint Shops (3)
USA Corps (3)
JBUSMC (2)
AFSSC (1)

Units organized under following TOE's (2 each unless otherwise indicated):	11–98
	11–97
	11–117
1–7	11–155
1–17	11–157
1–107	11–500 AA–AE (4)
1–127	11–555
1–207	11–557
5–343	11–587
5–352	11–592
5–412	11–597
6–100	12–17
6–101	17
6–200	19–55
6–201	19–56
6–300	19–57
6–301	19–500 AA–AE
6–525	29–56
6–565	30–600 AA–AE
6–575	32–57
6–576	32–500
9–500 AA–AC	33–77
10–105	33–600 AA–AC
10–106	39–51
10–107	39–52
10–202	39–62
10–206	44–7
10–377	44–8
10–445	44–12
10–448	44–15
10–467	44–16
11–5	44–17
11–6	44–36
11–7	44–70
11–15	44–102
11–16	44–435
11–25	44–436
11–26	44–437
11–27	44–535
11–38	44–536
11–45	44–537
11–46	55–137
11–55	57
11–95	57–5
11–96	

NG: State AG (3); units—same as Active Army except allowance is one copy to each unit.

USAR: None.

For explanation of abbreviations used, see AR 320–50.

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